



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,832	10/30/2003	Ryouichi Ootsu	501.43231X00	7188

20457 7590 10/30/2007
ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-3873

EXAMINER

NGUYEN, JENNIFER T

ART UNIT	PAPER NUMBER
----------	--------------

2629

MAIL DATE	DELIVERY MODE
-----------	---------------

10/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/695,832	Applicant(s) OOTSU ET AL.	
	Examiner Jennifer T. Nguyen	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-14 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 11,16-19 and 23 is/are allowed.
- 6) ☒ Claim(s) 2,4-10,12-14 and 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is responsive to Amendment filed 8/16/07.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2 and 4-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuwashiro (Patent No.: US 5,945,984).

Regarding claim 5, Kuwashiro teaches an image display device (fig. 1) is characterized in that a drive circuit (801, 701) which supplies signals to respective pixels in an image display part of a substrate through signal lines arranged in a plane (701) of the substrate is formed outside the image display part (2) (col. 5, lines 18-36),

the drive circuit is constituted of a plurality of semiconductor devices (601-1 to 601-8, fig. 3), and the respective semiconductor devices are configured such that data are supplied between these respective semiconductor devices (601-1) and other semiconductor devices (601-2) which are arranged adjacent to these respective semiconductor devices through data transfer signal lines (783) arranged in the plane of the signal lines of the substrate, and

a dummy line (731) arranged in both of the plane of the signal lines of the substrate and in the plane of the data transfer lines of the substrate is formed in the plane of the substrate between the signal lines (721) in the plane of the substrate and the data transfer signal lines (783) in the plane of the substrate (col. 6, line 36 to col. 7, line 10);

wherein the dummy line (731) is formed so as to extend along at least one of the signal lines in the plane of the substrate.

Regarding claim 2, Kuwashiro teaches both ends of the dummy line (731) are not connected to other signal lines (721, fig. 3).

Regarding claim 4, Kuwashiro teaches the dummy line is constituted of a plurality of lines which are arranged in parallel (i.e., dummy pad).

Regarding claim 6, Kuwashiro teaches the signal lines are drain signal lines which supply video signals to respective pixels, and the drive circuit constitutes a video signal drive circuit (fig. 3).

Regarding claim 7, Kuwashiro teaches the signal lines are gate signal lines which supply scanning signals to respective pixels, and the drive circuit constitutes a scanning signal drive circuit (col. 2, lines 46-59).

Regarding claim 8, Kuwashiro teaches the signal lines which are arranged adjacent to each other are formed into groups (721), the signal lines which are formed into each group are directed in the converging direction outside the image display part and are connected to the respective semiconductor devices (fig. 1), and data transfer signal lines (783, fig. 3) which connect between one semiconductor device (601-1) and another semiconductor device (601-2) arranged adjacent to the one semiconductor device are formed such that the data transfer signal lines (783) loop around area at the image display part side between these respective semiconductor devices (fig. 3).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwashiro (Patent No.: US 5,945,984) in view of Ogawa (Patent No. US 6,680,759).

Regarding claim 9, Kuwashiro does not specifically teach the dummy lines are connected with the signal lines.

Ogawa teaches the dummy lines are adjacent and connected with the signal lines (fig. 9, col. 11, lines 4-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the dummy lines are connected with the signal lines as taught by Ogawa and Kuwashiro in order to allow the dummy lines more stable.

Regarding claim 14, the combination of Kuwashiro and Ogawa teaches the signal lines have a bent portion along the extension thereof, and the dummy line extends along the signal lines and has a corresponding bent portion (fig. 2 of Ogawa).

6. Claims 10, 12, 13, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwashiro (Patent No. US 5,945,984) in view of Ogawa (Patent No. US 6,680,759) and further in view of Hayakawa et al. (Patent No.: US 6,172,732).

Regarding claims 10 and 12, the combination of Kuwashiro and Ogawa differs from claim 10 in that it does not specifically teach the connection between the dummy lines and the signal lines are formed into a seal material which seals a pair of substrate.

Hayakawa teaches a connection between the dummy lines (43, fig. 6) and the signal lines (41) are formed into a seal material which seals a pair of substrate (col. 3, lines 55-57, col. 6, lines 19-22, col. 10, lines 39-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the connection between the dummy lines and the signal lines are formed into a seal material which seals a pair of substrate as taught by Hayakawa in the system of the combination of Kuwashiro and Ogawa in order to obtain a display panel having uniform electrical characteristics.

Regarding claim 13, the combination of Kuwashiro, Ogawa, and Hayakawa teaches the dummy line is arranged between the signal lines and the data transfer line so as to enable prevention of a disconnection due to static electricity caused by a spark generated between one of the signal lines and one of the data transfer lines (col. 11, lines 1-7 of Hayakawa).

Regarding claim 20, the combination of Kuwashiro, Ogawa, and Hayakawa teaches the dummy line (43, fig. 1 of Hayakawa) includes a first dummy line part and a second dummy line part, the first dummy line part is connected with the signal lines (41) which are arranged adjacent to the first dummy line part, and the second dummy line part is connected with the first dummy line part which is arranged adjacent to the second dummy line part (please see fig. 1 of Hayakawa).

Regarding claim 21, the combination of Kuwashiro, Ogawa, and Hayakawa teaches the connection between the first dummy line part and the signal lines, and the connection between the second dummy line part and the first dummy line part are formed into a seal material (44) which seals a pair of the substrates (col. 3, lines 55-57, col. 6, lines 19-22, col. 10, lines 39-42).

Art Unit: 2629

Regarding claim 22, the combination of Kuwashiro, Ogawa, and Hayakawa teaches the connection between the first dummy line part and the signal lines are formed into a seal material which seals a pair of the substrates, and the connection between the first dummy line part and the second dummy line part is formed at a position where the pair of the substrates overlap each other (col. 3, lines 55-57, col. 6, lines 19-22, col. 10, lines 39-42).

Response to Arguments

7. Applicants' arguments filed 05/24/2001, have been fully considered but they are not persuasive because as follows:

In response to Applicants' argument stated, "Kuwashiro does not provide signal lines 721, data transfer signal lines 783, and a dummy line 731, arranged in the same plane". Examiner respectfully disagrees. Kuwashiro teaches signal lines 721, data transfer signal lines 783, and a dummy line 731 are arranged in the X printed-wiring board (701). The X printed-wiring board (701) is integrate unit arranged in a plane as shown in fig. 1; Therefore, Kuwashiro teaches signal lines 721, data transfer signal lines 783, and a dummy line 731 are arranged in the same plane. The ground of the rejection is therefore maintained.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 2629

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Claims 11, 16-19, and 23 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer T. Nguyen whose telephone number is 571-272-7696. The examiner can normally be reached on Mon-Fri: 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Nguyen
10/25/07



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600